

Briefing Paper 7 | August 2024

Waste Management and Recycling

Overview

This paper provides an overview of waste management in Jersey and is structured around two areas: solid waste and liquid waste.



Introduction

On average each Islander produces around 1 tonne of household waste <u>annually</u> and it is one of the roles of Government to ensure that waste generated by its citizens is managed effectively. Waste management centres around the collection, movement and treatment of waste and the <u>Waste Management (Jersey) Law 2005</u>, which controls this activity in Jersey, sets out the following regulatory objectives of the Law:

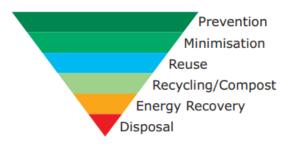
- (a) the minimizing of the generation of waste within Jersey;
- (b) the adequacy, for the environmentally sound management of controlled wastes within Jersey, of facilities used by persons who carry on activities relating to those wastes;
- (c) the taking, by those persons, of measures that are necessary to avoid or prevent pollution arising from such activities; and
- (d) compliance with international agreements, other international instruments and international obligations (including the OECD Decision) that relate to the transboundary movement of waste and are applicable to or binding on Jersey.
 (Part 2, Section 10)

Jersey's international obligations include compliance with the <u>Basel Convention on the Control</u> of <u>Transboundary Movements of Hazardous Wastes and their Disposal</u> which was extended to Jersey on 14 September 2007.¹

Central to waste management practice is the principle of the waste hierarchy. An internationally recognised version of the hierarchy is cited in Jersey's <u>Solid Waste Strategy</u>:

¹ Parties to the Basel Convention





(p. 30)

Solid Waste

Strategy

Jersey's <u>Solid Waste Strategy</u>, published in 2005 by the Environment and Public Services Committee, sought to shape the management of solid waste on the island for the next 25 years and set out the following aims:

- Work with the Comité des Connétables to improve the segregation of waste at source
- Apply the internationally agreed waste hierarchy
- Develop proposals for financial mechanisms to change behaviour in order to reduce waste generated
- Increase recycling and composting to at least 32% by the end of 2009
- Establish a modern composting facility for the recycling of green waste by 2007
- Replace the current Bellozanne Energy from Waste plant, originally commissioned in 1979, with a modern, fit-for-purpose facility by 2009
- Maximise the life of the La Collette reclamation site, projected to be full around 2015, for disposal of inert waste (p. 6-7)

The States Assembly approved the Strategy (P.95/2005) in July 2005.²

Hazardous and inert waste

Hazardous waste such as the ash generated by the Waste to Energy Facility (also known as Air Pollution Control Residue (APCr)) is sent to the UK as it is not possible to dispose of the waste appropriately on Jersey. However, certain types of hazardous waste such as asbestos and contaminated soil are dealt with on the Island by burial at La Collette in containment cells. Inert waste generated on the Island also goes to La Collette, however as inert waste cannot disintegrate naturally, either biologically or chemically³ and therefore doesn't typically threaten the environment, the condition of waterways, or the health of people or other animals, it does not require containment cells as hazardous waste does. On the Island, inert waste is primarily made up of building construction materials, and around 40% of inert waste is recycled which is a higher percentage than the UK.⁴

² States Assembly Minutes - <u>12th July</u> and <u>13th July 2005</u>

³ Inert Waste - an overview | ScienceDirect Topics

⁴ Official Record – 18th July 2023, p. 24



La Collette commenced operation in 1996 and has been taking an average of 183,000 tonnes of waste per annum between 2015 and 2019.⁵ In response to the infill site reaching capacity the La Collette Waste Management Site – Development Plan (P.17/2023) as <u>amended</u> was passed by the States in July 2023 which supported the short/medium term plan for the continuation of the management and storage of hazardous waste and inert waste at La Collette. The plan included the formation of an East Headland and South Headline by deposition of hazardous waste in cells and a South Headland and West Headland by deposition of inert waste. The proposition also requested the Minister for Infrastructure and the Minister for the Environment to develop a long-term strategy for inert and hazardous waste before the next review of the Island Plan.

La Collette Energy Recovery Facility

A key focus of the <u>Solid Waste Strategy</u> was the replacement of the aging Bellozane incinerator plant which had been operating since the 1970s. In May 2008, the <u>Energy from waste facility:</u> <u>establishment and acceptance of tender</u> proposition and report proposed a two-stream, conventional Energy from Waste plant with modern flue gas treatment and steam turbine which was expected to generate 7% of the Island's electricity needs as the preferred solution.

The construction of the plant was begun in February 2009, took two years to complete, and saw the first electricity generated in March 2011. The plant cost £110 million to build. The operations of Bellozanne Energy from Waste plant ceased over Christmas of 2010 and the demolition of the incinerator chimney was completed in July 2014. In November 2021 cracks were found in the facility's steam turbine which prevented electricity generation though waste could still be processed. Following this discovery, a new generator rotor was purchased and was installed in July 2024. Since 2021 there have only been four months when the generator has not been running due to the cracks.

Jersey's Waste to Energy (WtE) plant is one of around 1700 such plants worldwide, 80 percent of which are in developed countries including Japan, France, Germany and the United States. Currently, most WtE plants across the world are privatised (either fully or via a Public-Private Partnership (PPP) contract). Which often means municipalities have contractual obligations with the private providers to deliver a certain volume of waste or pay compensation which negatively impacts any waste-reduction efforts. The European Union, which has relied on waste incineration for the past few decades, is now moving away from thermal WtE and towards more ecologically acceptable solutions such as waste prevention, reuse and recycling.

Now 13 years after it first began operating, replacement of the Energy from Waste plant is being considered by the Infrastructure Minister. The replacement will need to take into account the Carbon Neutral Roadmap and the Island's journey to net zero emissions as the current waste to energy facility generates emissions that contribute to the Island's carbon footprint.

⁵ Bridging Island Plan – volume 3: Minimising waste and environmental risk, p. 282

⁶ Waste to Energy: Considerations for informed decision-making: Summary for policymakers

⁷ Waste to Energy: A privatised false solution



Recycling and Composting

Recycling is a component of the <u>Solid Waste Strategy</u> which states: "By the end of 2009, the Committee will aim to increase the local composting and recycling rate to at least 32%" (p.9).

The percentage of household and commercial municipal waste produced in Jersey and recycled over the last three years stands at:

2021	36.9%	
2022	35%	
2023	34.8%	

According to the <u>World Population Review</u>, Germany is the country that has the highest recycling rate in the world, recycling approximately 56 percent of all the waste it produces.

Recycling on the Island is currently managed by a mix of kerbside collection and mini recycling centres in each parish. Each parish collects certain types of recycling as set out below:

Parishes - Waste and Recycling Collection - Parishes

Parish	Refuse	Paper/Card	Plastic	Metals	Glass
Grouville	✓				✓
St Brelade	✓	✓	✓	✓	✓
St Clement	✓				
St Helier	✓	✓	✓	✓	
St John	✓	✓	✓	✓	✓
St Lawrence	✓	✓	✓	✓	✓
St Martin	✓				✓
St Mary	✓	✓	✓	✓	✓
St Ouen	✓				✓
St Peter	✓	✓	✓	✓	✓
St Saviour	✓	✓	✓	✓	✓
Trinity	✓	✓	✓	✓	✓

(Source: Waste collection (gov.je))

St Helier and St Saviour have their own recycling arrangements, with recycling sorted at St. Helier's depot on St. John's Main Road before it is exported to France. All other recycling collected through Government-run schemes is sent to the UK for processing.⁸

Household green waste can be delivered to the <u>La Collette household green waste reception</u> where it is turned into compost and made available for purchase. However, food waste, which makes up around 35% of household waste, is not accepted as green waste. A growing number of countries are introducing the collection of food waste as part of green waste, with the separate collection of bio-waste becoming mandatory across Europe from December 2023. In March of

⁸ INSIGHT: Our Throwaway Society... Is recycling worth the effort and cost? | Bailiwick Express Jersey (May 2023)

⁹ The best European examples for collecting bio-waste



2024 the <u>UK Government announced</u> funding of up to £295 million to support councils in England to introduce weekly food waste collection by 31 March 2026.

Liquid Waste Strategy

The aim of the <u>Bridging Liquid Waste Strategy 2023-26</u> (LWS) is the optimisation and improvement of Infrastructure and Environment's operations, through a range of key goals and outputs, including:

- Identify improvements needed to collection, treatment and disposal services and opportunities for early enabling works to facilitate future service security
- Recommend locations for any new assets such as supplementary or satellite sewage treatment works and network storage
- Identify parts of the network that require significant maintenance, repair, reinforcement or expansion
- Review surface water management, identify areas where works are required to reduce flooding risks, and identify the parts of the network that offer the greatest benefit from surface water separation (p. 6)

The Waste Management (Jersey) Law 2005 does not include the management of surface water (or storm water) as it is not waste in liquid form. However, much of the Island's current sewer systems, like most older systems, does not differentiate between sewerage and surface water which increases the strain on the sewer network. It is best practice to separate sewerage and surface water and this work is being undertaken where practicable and any new development on the Island is required to have separate systems.¹⁰

Sewage drainage and treatment

A major project has been the replacement of the Bellozanne Sewage Treatment Works (STW), many parts of which dated back to the original construction in the 1950s. A Master Plan was developed for a replacement site in 2009 and the first step of the new Centralised Sludge Treatment Facilities (CSTF) was completed in 2015. During construction of the CSTF it was decided that a phased approach to the replacement of the whole STW was the best option. The construction of a conventional carbonaceous plant, costing £67 million, was completed in 2023, and has the capacity to deal with a connected population equivalent to 141,600 people. The final additional components that were extensions to the replacement of the STW at Bellozanne are expected to be completed in 2025 bringing this project to a close. ¹¹ The funding for the new STW was supplemented by diverting away part of the Infrastructure Rolling Vote from network projects resulting in underinvestment in the network over the last few years. ¹²

With the completion of the STW the lack of capacity in the aging sewer network is now under the spotlight. The <u>Government Plan 2024-2027</u> provided an initial investment of £15.6 million in the Island's sewage drainage network (p. 8). On <u>21st May 2024</u>, the Minister for Infrastructure told

¹⁰ Bridging Liquid Waste Strategy 2023-26, p. 5

¹¹ Proposed Budget (Government Plan) 2025-2028, p. 59

¹² Bridging Liquid Waste Strategy 2023-26, p. 1



the Assembly that "to meet long-term needs, the [Infrastructure] department is requesting additional funding from 2026 onwards, approximately £10 million per annum, to address further infrastructure improvements to give the Island greater foul sewage capacity where it is required." (p. 49)

An additional investment of £5.663 million in the Liquid Waste Key Infrastructure project is set out in the <u>Proposed Budget (Government Plan) 2025-2028</u> (p. 63), and the additional investment needs for 2027 onwards "are intended to be met following the implementation of a new funding model once it has been agreed." (p. 59)

Further reading:

- Waste Management Statistics (2015-2020)
- Energy From Waste Facility: Supporting Statement: December 2006 States of Jersey report (Babtie Fichtner)